Attachment B: Proposed additions to the chapter on Definitions in the Diagnostic Manual for Aquatic Animal Diseases

DEFINITIONS

The *International Aquatic Animal Health Code* (companion volume to this *Manual*) contains a list of definitions that may be consulted for the meaning of terms used in this *Manual*. Some terms that are not used in the *Code* but that appear in the *Manual*, are defined below:

Epidemiological unit

A group of animals that share approximately the same risk of exposure to a disease agent with a defined location. This may be because they share a common aquatic environment (e.g. fish in a pond, caged fish in a lake), or because management practices make it likely that a disease agent in one group of animals would quickly spread to other animals (e.g. all the ponds on a farm, all the ponds in a village system).

Test

A procedure used to classify a *unit* as either positive or negative with respect to an infection or disease. Tests may be classified as:

- confirmatory diagnostic, when applied to clinically diseased individuals:
- confirmatory screening, when applied to apparently healthy individuals: or
- confirmatory, when applied to confirm the result of a previous test.

Test system

A combination of multiple *tests* and rules of interpretation which are used for the same purpose as a *test*.

Probability sampling

A sampling strategy in which every *unit* has a known non-zero probability of inclusion in the sample.

Targeted surveillance

Surveillance targeted at a specific disease or infection.

Early detection system

A system for the timely detection and identification of the incursion or emergence of infection or disease in a country, zone or aquaculture establishment. An early detection system must be under the control of the Competent Authorities and must include the following characteristics:

- confirmatory representative coverage of target animal *populations* by field services:
- confirmatory ability to undertake effective disease investigation and reporting;

- confirmatory access to laboratories capable of diagnosing and differentiating relevant diseases;
- confirmatory a training programme for veterinarians or fish health specialists for detecting and reporting unusual disease occurrence.

Prescribed biosecurity

A set of conditions applying to a particular disease or infection, and a particular

conditions

zone or country, required to ensure adequate biosecurity, namely:

- confirmatory the disease is legally notifiable;
- confirmatory an *early detection system* is in place;
- confirmatory no vaccination against the disease is carried out;
- confirmatory infection is not known to be established in wild *populations*;
- confirmatory import requirements to prevent the introduction of disease or infection into the country or zone, as outlined in the *Code*.

Units

Individually identifiable elements. This is a generic concept used to describe, for example, the members of a *population*, or the elements selected when sampling. In these contexts, examples of units include individual animals, to ponds, nets, cages, farms, villages, districts, etc.

Population

A group of *units* sharing a common defined characteristic.

Target population

For the purposes of demonstrating freedom from infection, the *population* of interest, usually made up of all aquatic animals of species susceptible to a specified disease agent in a defined country, zone or aquaculture establishment

Study population

The *population* from which evidence of freedom from infection is derived. This may be the same as the *target population* or a subset of it.

Surveillance system

A method of surveillance that generates a source of information on the animal health status of *populations*.

Confidence

In the context of demonstrating freedom from infection (in which the null hypothesis is that infection is present), the confidence is the probability that a *surveillance system* or combination of *surveillance system* would detect the presence of infection if the *population* were infected. The confidence depends on the design prevalence, or the assumed level of infection in an infected *population*. Confidence therefore refers to our confidence in the ability of a *surveillance system* to detect disease, and is equal to the sensitivity of the system. This is distinct from (but may be used to calculate) the probability that a given *population* is free from infection, based on the results of one or more *surveillance systems*.